

ABSTRACT OF THE DISCLOSURE

A method of identifying nucleic acid samples comprising:
providing a microarray including a substrate coated with a composition including
a population of micro-spheres dispersed in a fluid containing a gelling agent or a
5 precursor to a gelling agent and immobilized at random positions on the substrate,
at least one sub-population of said population micro-spheres containing an optical
barcode generated from at least one colorant associated with the micro-spheres
and including a nucleic acid probe sequence; contacting said array with a target
nucleic acid sequence; and detecting the color barcode of said sub-population of
10 micro-spheres due to the interaction of said probe nucleic acid sequence and said
target nucleic acid sequence.

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